

Application No. 09/932,050
Amendment and Response dated February 17, 2006
Reply to Office Action of October 17, 2005

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A non-aqueous electrolyte secondary cell comprising:
a cathode comprising $\text{Li}_x\text{Fe}_y\text{PO}_4$ ~~$\text{Li}_x\text{M}_y\text{PO}_4$ having an olivine structure and~~ having a particle diameter not greater than 1 micrometers and wherein $0 < x \leq 2$ and $1 \leq y \leq 2$;
an anode wherein said anode comprises sintered carbon material prepared by sintering a carbon material capable of doping/dedoping lithium; and
a non-aqueous electrolyte solution.
- 2-3. (canceled)
4. (currently amended) A non-aqueous electrolyte secondary cell comprising:
a cathode having a molded body comprising a cathode active material and a conductive agent, said active material comprising $\text{Li}_x\text{Fe}_y\text{PO}_4$ ~~$\text{Li}_x\text{M}_y\text{PO}_4$ having an olivine structure and~~ having a particle diameter not greater than 1 micrometers wherein $0 < x \leq 2$ and $1 \leq y \leq 2$;
an anode having a molded body comprising a material selected from the group consisting of an anode active material capable of doping/dedoping lithium, a conductive agent, and mixtures thereof; and
a non-aqueous electrolyte solution.
- 5-13. (canceled)
14. (previously presented) The non-aqueous electrolyte secondary cell of Claim 1, wherein said carbon material is selected from the group consisting of non-graphitizable carbon, graphitizable carbon, graphite, and mixtures thereof.
15. (previously presented) The non-aqueous electrolyte secondary cell of Claim 1, wherein said non-aqueous electrolyte solution comprises an electrolyte salt and a non-aqueous solvent.

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16. (previously presented) The non-aqueous electrolyte secondary cell of Claim 15, wherein said electrolyte salt is a lithium salt having ion conductivity.

17. (previously presented) The non-aqueous electrolyte secondary cell of Claim 16, wherein said lithium salt is selected from the group consisting of LiClO_4 , LiAsF_6 , LiPF_6 , LiBF_4 , $\text{Li}(\text{C}_6\text{H}_5)_4$, LiCl , LiBr , $\text{CH}_3\text{SO}_3\text{Li}$, $\text{N}(\text{C}_n\text{F}_{2n}\text{SO}_2)_2\text{Li}$, and mixtures thereof.

18. (previously presented) The non-aqueous electrolyte secondary cell of Claim 15, wherein said non-aqueous solvent is selected from the group consisting of propylene carbonate, ethylene carbonate, 1,2-dimethoxyethane, 1,2-diethoxyethane, diethyl carbonate, methyl ethyl carbonate, dimethyl carbonate, γ -butyrolactone, tetrahydrofuran, 1,3-dioxolane, 4-methyl-1,3-dioxolane, diethyl ether, sulfolane, methyl sulfolane, acetonitrile, propionitrile, and mixtures thereof.

19. (previously presented) The non-aqueous electrolyte secondary cell of Claim 4, wherein said anode active material comprises a carbon material selected from the group consisting of non-graphitizable carbon, graphitizable carbon, graphite, and mixtures thereof.

20-21. (canceled)

22. (currently amended) The non-aqueous electrolyte secondary cell of Claim 4, wherein said anode conductive agent is selected from the group consisting of SiB_4 , SiB_6 , Mg_2Si , Ni_2Si , NiSi_2 , TiSi_2 , MoSi_2 , CoSi_2 , NiSi_2 , CaSi_2 , CrSi_2 , Cu_5Si , FeSi_2 , MnSi_2 , NbSi_2 , TaSi_2 , VSi , WSi_2 , ZnSi_2 and mixtures thereof.

23. (previously presented) The non-aqueous electrolyte secondary cell of Claim 4, wherein said non-aqueous electrolyte solution comprises an electrolyte salt and a non-aqueous solvent.

24. (previously presented) The non-aqueous electrolyte secondary cell of Claim 23, wherein said electrolyte salt is a lithium salt having ion conductivity.

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25. (previously presented) The non-aqueous electrolyte secondary cell of Claim 24, wherein said lithium salt is selected from the group consisting of LiClO_4 , LiAsF_6 , LiPF_6 , LiBF_4 , $\text{LiB}(\text{C}_6\text{H}_5)_4$, LiCl , LiBr , $\text{CH}_3\text{SO}_3\text{Li}$, $\text{N}(\text{C}_n\text{F}_{2n}\text{SO}_2)_2\text{Li}$, and mixtures thereof.

26. (previously presented) The non-aqueous electrolyte secondary cell of Claim 23, wherein said non-aqueous solvent is selected from the group consisting of propylene carbonate, ethylene carbonate, 1,2-dimethoxyethane, 1,2-diethoxyethane, diethyl carbonate, methyl ethyl carbonate, dimethyl carbonate, γ -butyrolactone, tetrahydrofuran, 1,3-dioxolane, 4-methyl-1,3-dioxolane, diethyl ether, sulfolane, methyl sulfolane, acetonitrile, propionitrile, and mixtures thereof.